

Remarks

The present invention provides an apparatus for clamping a workpiece in a machine. The apparatus comprises an inner nose portion being rotatable about an axis of rotation and comprising a plurality of mounting surfaces, and, an outer ring portion rotatable about the axis of rotation and comprising at least one clamp operable between an unclamped position and a clamped position. In the unclamped position, the inner nose portion is rotationally positionable about the axis relative to the clamp such that a workpiece positioned against the mounting surfaces may be oriented relative to the clamp to a position at which, with the clamp being operated to the clamped position, the workpiece is clamped against the mounting surfaces. The clamping results in a coupling of the inner nose portion and the outer ring portion whereby with a clamped workpiece, the inner nose portion and the outer ring portion are rotatable together and are positionable about the axis.

The status of the claims is as follows:

1. Claims 1, 2, 5, 7 and 8 are rejected under 35 U.S.C. §102(b) as being anticipated by GB 2,186,512 (hereafter GB '512);
2. Claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over GB '512 in view of SU 1,473,906 (hereafter SU '906); and,
3. Claims 3 and 4 are rejected under 35 U.S.C. §103(a) as being unpatentable over GB '512 in view of Mortell et al. (US 6,517,411).

The drawings have been objected to as being obviously informal. Replacement formal drawings are attached hereto. With the submission of the formal drawings, Applicants believe the objection to the drawings is now moot.

The Examiner has rejected claims 1, 2, 5, 7 and 8 under 35 U.S.C. §102(b) as being anticipated by GB '512. The rejection is respectfully traversed.

GB '512 teaches a drill sharpening apparatus (Figure 8) comprising a drill holder 233 having a collet 275 comprising a plurality of fingers 281, 283, 285 and 287 clearly intended for gripping the round form of a drill bit shank. Drill holder 233 further includes a main tubular body having threads 273, intermediate cap 276 and main cap 280. A drill is clamped in collet 275 by tightening rotation of main cap 280 on threads 273 thereby causing intermediate cap 276 to slide along slots 274 of the main body thereby compressing collet 275 and clamping the drill.

It is clear from a reading of the present application that a workpiece, such as a cutting blade, is clamped in the inventive assembly by the action of a clamp 14 contacting a workpiece and urging the workpiece against one or both mounting surfaces 24, 26. See Figures 1 or 9-11 for example. No such corresponding action occurs in GB '512. The only elements contacting a drill are fingers 281, 283, 285, 287 which the Examiner has deemed correspond to Applicants' mounting surfaces. The intermediate cap 276 of GB '512 (deemed to correspond to Applicants' clamp) makes no contact with the drill unlike in the present invention wherein clamp 14 contacts a workpiece (e.g. Figures 1 or 9-11). Thus, GB '512 does not meet this claim limitation and, therefore, cannot be anticipatory.

In an effort to further distinguish the present invention, Applicants' have amended claims 1, 7 and 8 to recite that the clamp is retracted from the workpiece in an unclamped position and is in contact with a workpiece in a clamped position. Support for this amendment can be found in Figures 9-11 as well as in the specification at page 7, paragraphs [0024] – [0026]. Clearly, this limitation is absent from, and is not suggested by, GB '512.

It is further noted in claim 8 that the step of "engaging said workpiece with said clamp," is not found in GB '512.

Also, the Examiner equates the inner nose portion of the present invention with the collet 275 of GB '512 and states that the inner nose portion (collet) of GB '512 is rotationally positionable about an axis of rotation in an unclamped position such that

a workpiece positioned against said mounting surfaces may be oriented relative to said clamp. Applicants cannot find such a teaching. It appears as though the collet of GB '512 is not rotatable absent any clamping. The only rotatable motion seen for the collet 275 is during positioning of the entire clamped drill holder 233 in the slot 292 (page 8, lines 125-128 of GB '512).

Given the above remarks and the amendments to claims 1, 7 and 8, the rejection of claims 1, 2, 5, 7 and 8 as being anticipated by GB '512 is, respectfully, believed to be improper and should be withdrawn.

The Examiner has rejected claim 6 under 35 U.S.C. §103(a) as being unpatentable over GB '512 in view of SU '906. This rejection is respectfully traversed.

The above discussion regarding GB '512 is hereby referenced and repeated.

SU '906 teach a drill chuck having a collet with two conical faces that are compressed by axial movement of corresponding upper and lower tapered rings. The collet is also locked by engagement with an outer ring (13). However, outer ring 13 locks the collet which the Examiner contends (in GB '512) corresponds to Applicants' inner nose portion. Claim 6 recites that the locking mechanism operates with the outer ring portion to lock the outer ring portion in a predetermined rotational orientation. These claim limitations clearly are not found in SU '906.

Thus, SU '906 fails to teach the limitations of claim 6 and, therefore, the combination of GB '512 and SU '906 would not arrive at, nor suggest, the claimed invention even if a reason to combine their teachings was evident. Furthermore, the deficiencies noted above with respect to GB '512 are not cured by the inclusion of SU '906. As such, the rejection of claim 6 as unpatentable is improper and should be withdrawn.

The Examiner has rejected claims 3 and 4 under 35 U.S.C. §103(a) as being unpatentable over GB '512 in view of Mortell et al. This rejection is respectfully traversed.

The above discussion regarding GB '512 is hereby referenced and repeated.

Mortell et al. teach an automated apparatus for verifying the identity and geometry of drill bits, sharpening the cutting tip of a drill bit and repositioning a locating ring on the shank of the drill bit subsequent to sharpening. While it is noted that Mortell et al. do teach the inclusion of vacuum within an aperture 74 (Figure 4) for holding a drill bit in shaft 72, no recitation of positive pressure is found and the location of any port of Mortell et al. is not found in a mounting surface of the aperture 74.

Thus, Mortell et al. do not provide the claimed subject matter of claims 3 and 4 and as such, the inclusion of the teaching of Mortell et al. with GB '512, even if properly combined, would not arrive at the claimed invention. In fact, Mortell et al. do not provide sufficient teaching even to overcome the deficiencies noted above with respect to GB '512. As such, the rejection of claims 3 and 4 as unpatentable is improper and should be withdrawn.

Conclusion

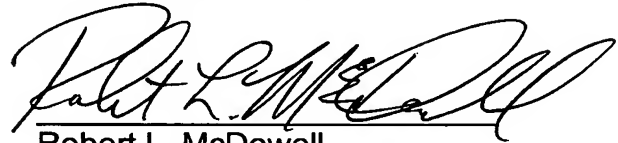
For the above reasons and given the amendment to claims 1, 7 and 8, the applied rejections are believed to be overcome. Claims 1-8 are believed to be allowable and a prompt Notice of Allowance is respectfully and earnestly solicited.

If the Examiner has any questions, she is cordially invited to telephone Applicant's Agent at (585) 461-8071. Should any additional fees be required in order that this paper, or any attachments hereto, be deemed a complete and timely response, the

Commissioner is hereby authorized to charge Deposit Account No. 07-1425 for any such fees.

Respectfully submitted,

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